

## WHAT IS CLAIMED IS

1. A database network router for managing data flow between at least one client and at least one database server, comprising:
  - (a) a client access module for communicating with the at least one client ; and
  - (b) a database resource manager for communicating with at least one database server,wherein said client access module and said database resource manager share a common software interface for said communicating.
2. The database network router, according to claim 1, wherein said software interface comprises a protocol manager for handling multiple database protocols.
3. The database network router, according to claim 1, further comprising:
  - (c) local data storage, wherein said database resource manager stores local data.
4. The database network router, according to claim 3, wherein said local data is chosen from the group consisting of:
  - (i) commonly used data objects,
  - (ii) results of parsed query statements,
  - (iii) non-optimized query statements, and
  - (iv) alternatives for said non-optimized query statements
  - (v) user defined objects
  - (vi) performance statistics.
5. The database network router, according to claim 1, wherein a portion of said database resource manager is installed as a database server agent.
6. A method of communicating in a database network comprising the steps of:
  - (a) receiving at least one client communication, selected from the group consisting of database queries and updates, from a client;
  - (b) sending said at least one client communication to a database; and
  - (c) in response to said at least one client communication, sending at least one database communication, selected from the group consisting of database responses and data, to said at least one client.
7. The method, according to claim 6, further comprising the steps of, prior to said receiving:

- (d) assigning a priority to said at least one client communication; and
  - (e) allocating said database to said at least one client communication.
8. The method, according to claim 7, further comprising the steps of, prior to said assigning:
- (f) identifying said at least one client and
  - (g) receiving status information chosen from the group consisting of:
    - (i) a load of said database,
    - (ii) a time of day of said assigning,
    - (iii) a day of week of said assigning
    - (iv) a service level of said at least one client, and
    - (v) a status of at least one communications line between at least one client and said database.
9. The method, according to claim 6, wherein said at least one client communication includes a query, the method further comprising:
- (d) prior to said sending, at least one step chosen from the group consisting of:
    - (i) analyzing said query,
    - (ii) modifying said query,
    - (iii) checking a cost estimate of said query,
    - (iv) parsing said query; and
    - (v) storing said query in local storage.
10. The method, according to claim 9, wherein said modifying of said query includes a blocking of said query, and wherein said at least one database communication includes an error message.
11. A method of connections pooling in a database network, comprising the steps of:
- (a) receiving a log-out and disconnect request from a first client that is initially connected to a database server of the database network by a database connection; and
  - (b) reporting said log-out to said database server of the network while leaving said database connection available for a second client
12. The method, according to claim 11, further comprising the steps of:
- (c) receiving a log-in and connection request from said second client;

- (d) reporting said log-in to said database server; and
- (e) using said database connection for said second client.

13. The method, according to claim 11, further comprising the steps of, prior to said reporting:

- (f) responding to said first client log-out and disconnect request with a message confirming log-out and disconnect.

14. A method of load balancing in a database network that includes a plurality of database servers, comprising the steps of:

- (a) detecting a failed one of the database servers; and
- (b) transferring connections of said failed database server to at least one other server.

15. The method, according to claim 14, further comprising the steps of:

- (c) monitoring said failed database server for a recovery thereof; and
- (d) transferring at least one new connection to said failed database after said recovery.

16. A method of synchronizing data in a database network, comprising the steps of:

- (a) providing a database network router for mediating communications between at least one client and at least one database server of the database network;
  - (b) receiving an updated data object from one of said at least one client of the database network;
  - (c) waiting for said at least one database server to report a successful update;
- and
- (d) upon receipt of said report allowing access to said updated data object.

17. A method of optimizing data queries in a database network that includes a plurality of databases, comprising the steps of:

- (a) sending at least one query to one of the database servers; and

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(b) monitoring a processing of said at least one query by said one database server, said monitoring including receiving information, regarding said at least one query, chosen from the group consisting of

- (i) a CPU time of said database server,
- (ii) a response time of said database server,
- (iii) a read/write load of said database server, and
- (iv) an execution load of said database server.

18. The method, according to claim 17, further comprising the step of:

(c) subsequent to said receiving, storing said queries in a log of popular non-optimized queries

19. The method, according to claim 18, further comprising the step of:

(d) reading said queries from said log.

20. The method, according to claim 18, further comprising the step of:

(e) analyzing and testing said queries.

21. The method, according to claim 18, further comprising the step of:

(f) building optimized alternatives for said queries

22. A method of migrating from an old database to a new database, comprising the steps of:

- (a) monitoring at least one communication of at least one client, between at least one database network router and:
  - (i) the old database, thereby providing first load results, and
  - (ii) the new database, thereby providing second load results; and
- (b) comparing said first and said second load results to identify which of said at least one communication, between said at least one database network router and the new database, requires tuning.